

WHAT IS CLAIMED IS:

1. A fire fighting vehicle comprising:

a turret including a base which is coupled to the vehicle, the turret being configured to rotate relative to the vehicle at the base; and

a turret controller configured to use feedback control to control the movement of the turret from a first position where the turret is positioned at a first angle of rotation at the base to a second position where the turret is positioned at a second angle of rotation at the base, the first and second angles being different.

2. The fire fighting vehicle of claim 1 wherein the turret controls the movement of the turret from the first position to the second position in response to a single input from an operator.

3. The fire fighting vehicle of claim 1 wherein the turret is configured to rotate in a plane that is approximately horizontal.

4. The fire fighting vehicle of claim 1 wherein the first position corresponds to a deployed position where the turret is positioned to dispense a fire fighting agent on a region of interest and the second position corresponds to a stored position in which the turret is stored for vehicle travel.

5. The fire fighting vehicle of claim 4 further comprising a locking mechanism that locks the turret in place after the turret reaches the second position.

6. The fire fighting vehicle of claim 1 further comprising a fire fighting agent delivery system capable of transporting a fire fighting agent from the fire fighting vehicle to a nozzle coupled to the turret.

7. The fire fighting vehicle of claim 1 wherein the first position corresponds to a stored position in which the turret is stored for vehicle travel and the second position corresponds to a deployed position where the turret is positioned to dispense a fire fighting agent on a region of interest.

8. The fire fighting vehicle of claim 1 wherein the turret controller causes the turret to move according to a predetermined pattern.

9. A method for controlling a turret mounted to a fire fighting vehicle comprising:

providing a turret including a base which is coupled to a vehicle, the turret being configured to rotate relative to the vehicle at the base; and

controlling movement of the turret from a first position where the turret is positioned at a first angle or rotation at the base to a second position where the turret is positioned at a second angle of rotation at the base, the first and second angles being different;

wherein the controlling movement step is performed by a turret motion controller using feedback control.

10. The method of claim 9 wherein the controlling step is performed in response to a single input from an operator.

11. The method of claim 9 wherein the turret is configured to rotate in a plane that is approximately horizontal.

12. The method of claim 9 wherein the first position corresponds to a deployed position where the turret is positioned to dispense a fire fighting agent on a region of interest and the second position corresponds to a stored position in which the turret is stored for vehicle travel.

13. The method of claim 9 wherein the first position corresponds to a stored position in which the turret is stored for vehicle travel and the second position corresponds to a deployed position where the turret is positioned to dispense a fire fighting agent on a region of interest

14. A turret for a vehicle comprising:

a first gear coupled to the vehicle, the first gear being stationary relative to the vehicle;

an apparatus coupled to the vehicle and configured to rotate relative to the vehicle, the apparatus including a second gear which is rotatably coupled to the first gear and is configured to rotate as the apparatus rotates relative to the vehicle; and

a position sensor coupled to the second gear, the position sensor being configured to measure the position of the apparatus.

15. The turret according to claim 14 wherein the apparatus rotates in an approximately horizontal plane.

16. The turret according to claim 14 wherein the position sensor is a rotary potentiometer.

17. The turret according to claim 14 wherein the apparatus further comprises a third gear rotatably coupled to the first gear, the third gear being configured to drive the rotation of the apparatus.

18. The turret according to claim 17 wherein the third gear is driven hydraulically.

19. The turret according to claim 17 wherein the second gear meshes with the third gear.

20. The turret according to claim 14 wherein the second gear is configured to drive the rotation of the apparatus.

21. The turret according to claim 14 wherein the apparatus is configured to dispense fire fighting agent.
22. The turret according to claim 14 wherein the apparatus is configured to rotate through a range of rotation that is not greater than approximately 90 degrees.
23. A fire fighting vehicle comprising:
  - a first gear fixedly mounted to the vehicle;
  - an apparatus coupled to the vehicle and configured to rotate relative to the vehicle, the apparatus including a second gear which is rotatably coupled to the first gear and is configured to rotate as the apparatus rotates relative to the base; and
  - a position sensor coupled to the second gear, the position sensor being configured to measure the position of the apparatus.
24. The fire fighting vehicle according to claim 23 wherein the apparatus rotates in an approximately horizontal plane.
25. The fire fighting vehicle according to claim 23 wherein the position sensor is a rotary potentiometer.
26. The fire fighting vehicle according to claim 23 wherein the apparatus further comprises a third gear rotatably coupled to the first gear, the third gear being configured to drive the rotation of the apparatus.
27. The fire fighting vehicle according to claim 26 wherein the third gear is driven hydraulically.
28. The fire fighting vehicle according to claim 23 wherein the apparatus is configured to dispense a fire fighting agent.

29. The fire fighting vehicle according to claim 23 wherein the apparatus is configured to rotate through a range of rotation that is not greater than approximately 90 degrees.

30. The fire fighting vehicle according to claim 23 wherein the first gear meshes with the second gear.

31. The fire fighting vehicle according to claim 23 wherein the apparatus is extendable.